

(Prior Art)

**FIG. 1**

# CONTROLLER/SOFTWARE APPLICATIONS

(PRIOR ART)

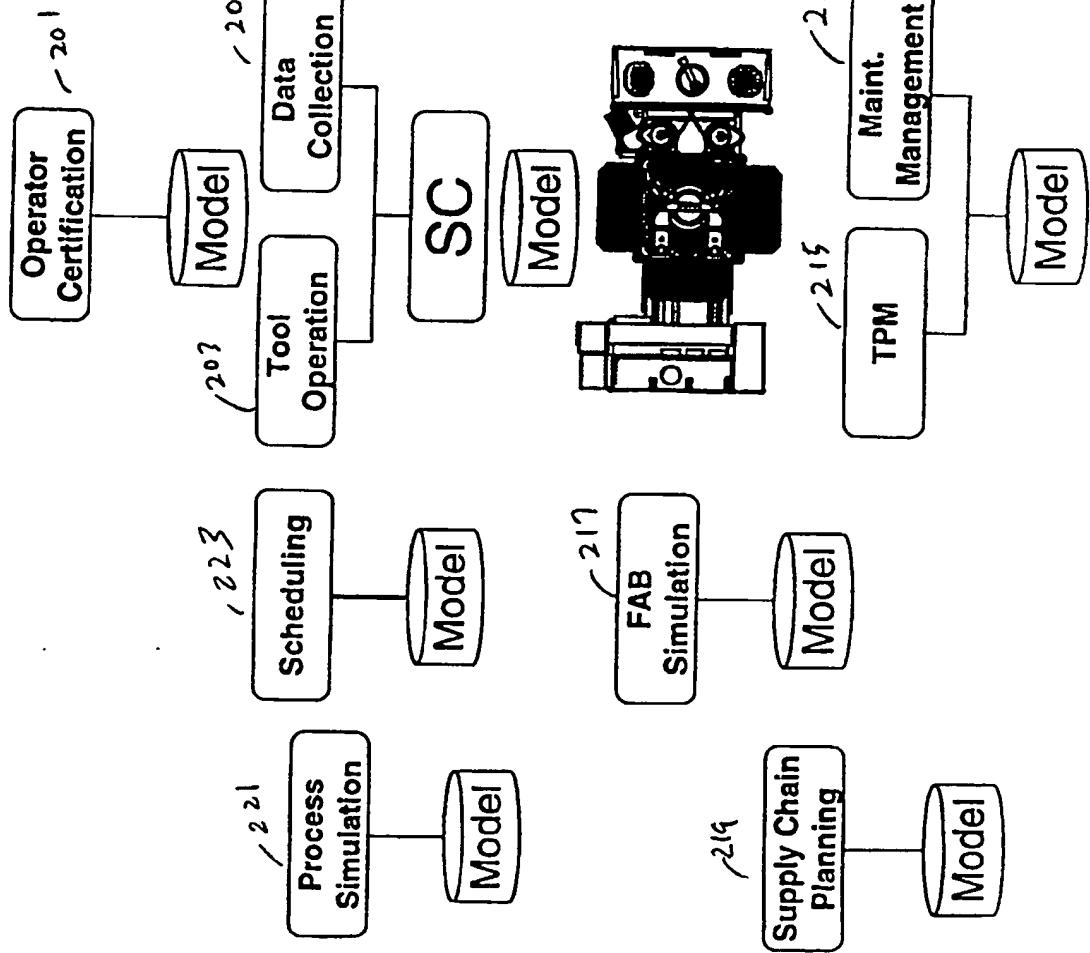


Fig. 2

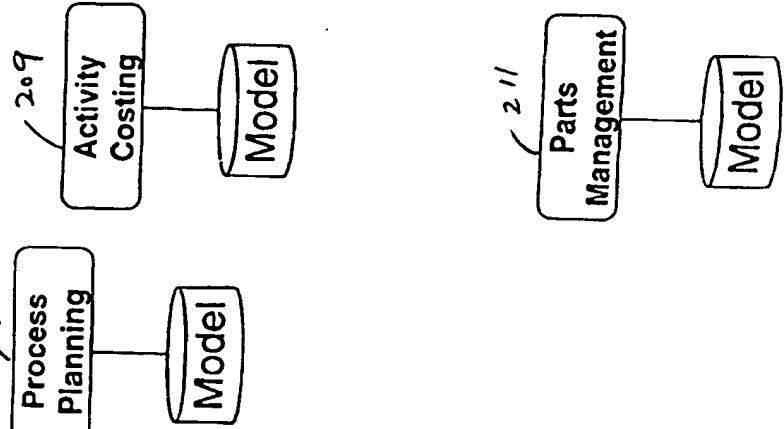


Fig. 6.

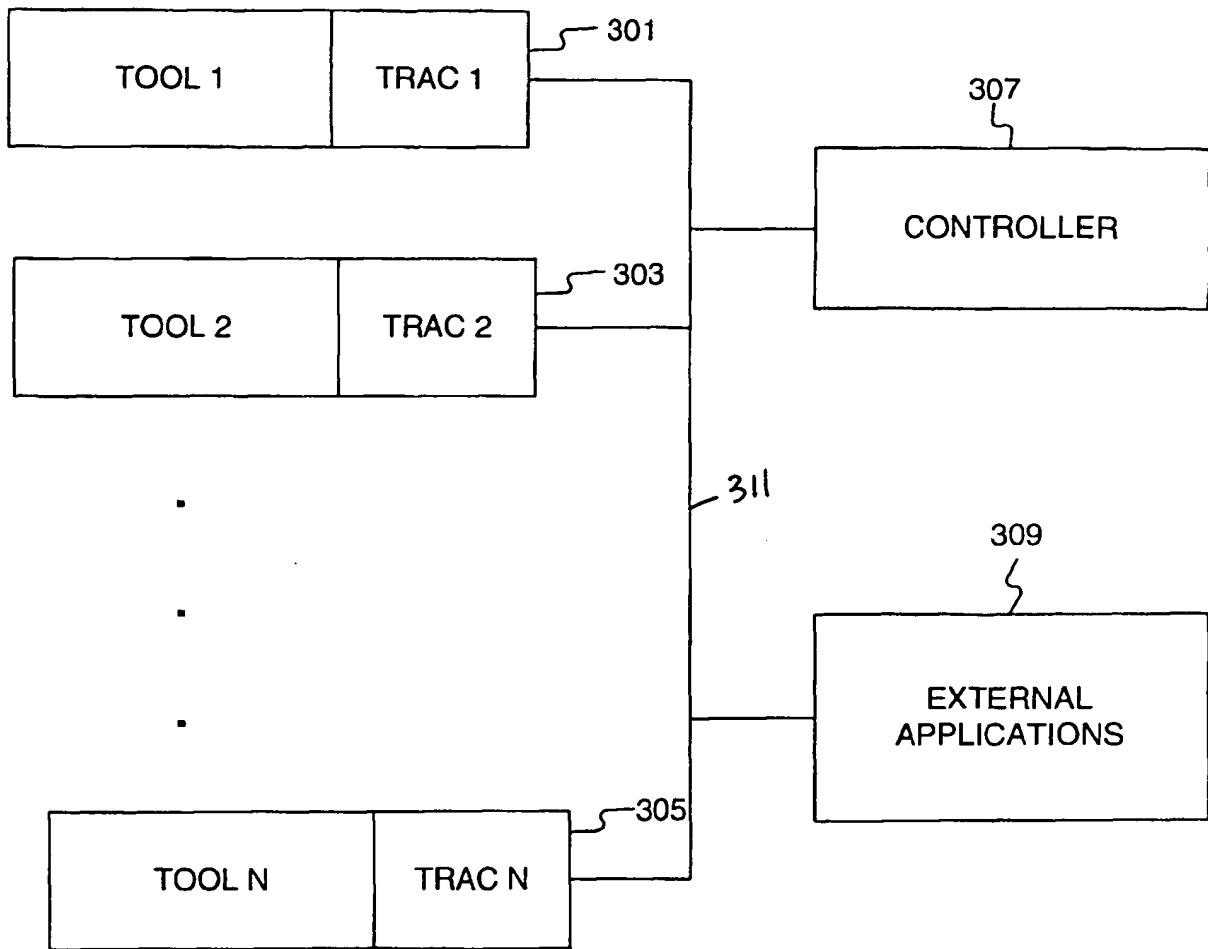
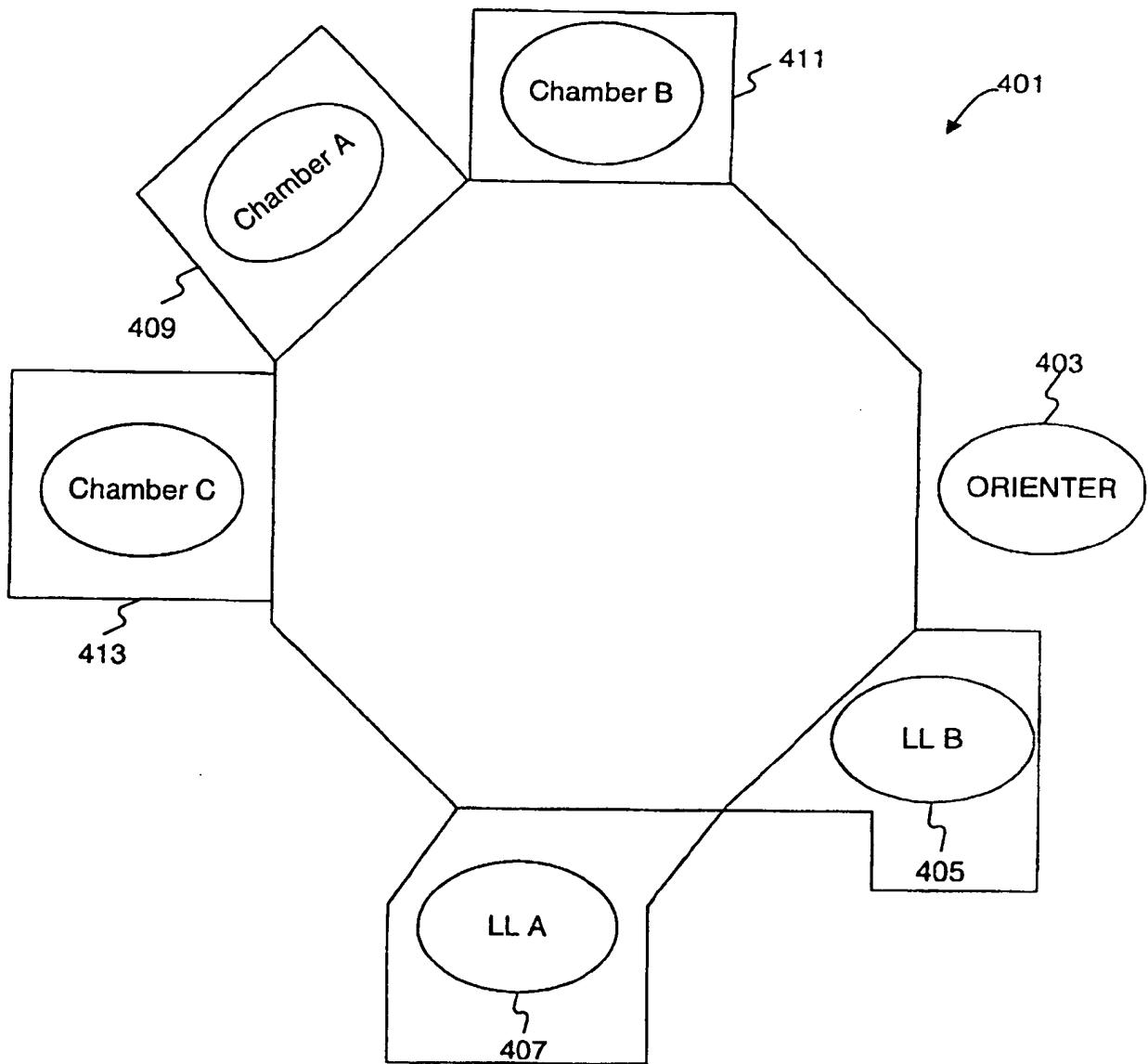


FIG. 3



**FIG. 4**

		Chamber A	Chamber B	Chamber C
	Tool			
<b>State</b>				
<b>Basic</b>		✓	✓	✓
<b>Tool Service</b>				
<b>Production</b>		✓	✓	✓
<b>Material Handling</b>		✓	✓	✓
<b>Quals</b>				
<b>Particles</b>		✓	✓	✓
<b>Manufacturing Dep</b>		✓	✓	✓
<b>Engineering Dep</b>		✓	✓	✓
<b>Process Services</b>				
T	<b>Process X</b>	✓		
T	<b>Process Y</b>	✓		
T	<b>Process Z</b>	✓		
C	<b>Process A</b>		✓	
C	<b>Process B</b>		✓	
C	<b>Process C</b>			✓

FIG. 5

FIG. 6

QoS - Cpk		Chamber C	Chamber B	Chamber A	Tool
Process Services					
	<b>Process X</b>				
	<b>Process Y</b>				
	<b>Process Z</b>				
	<b>Process A</b>		<b>2.1</b>	<b>2.16</b>	
	<b>Process B</b>		<b>3.03</b>	<b>3.21</b>	
	<b>Process C</b>				<b>4.16</b>

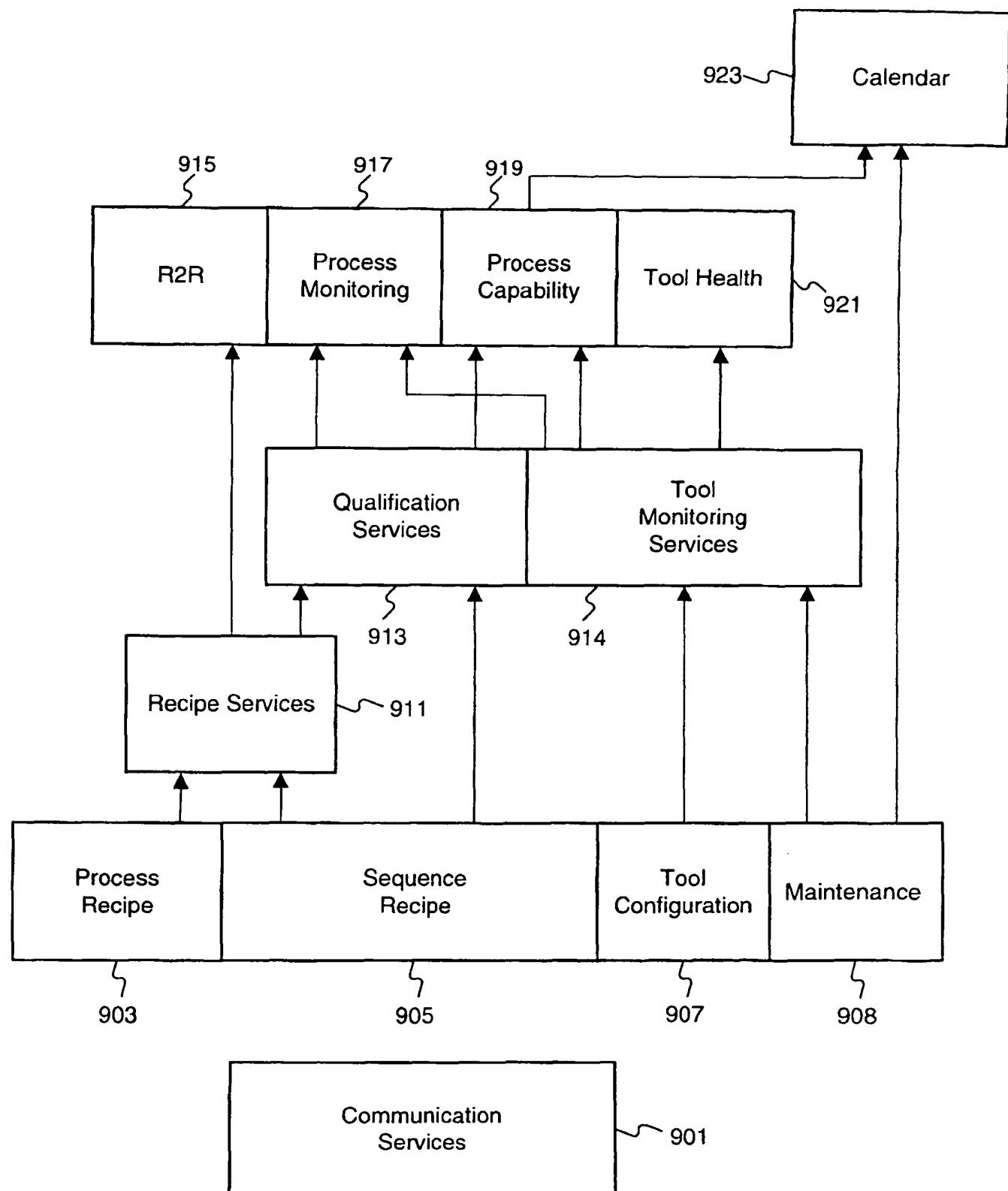
FIG. 7

QoS - Proc. Time		Chamber C	Chamber B	Chamber A	Tool
Process Services					
	<b>Process X</b>				
	<b>Process Y</b>				
	<b>Process Z</b>				
	<b>Process A</b>		<b>42</b>	<b>43</b>	
	<b>Process B</b>		<b>36</b>	<b>41</b>	
	<b>Process C</b>				<b>130</b>

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QoS - CPK		Tool 1	Tool 2	Tool 3	Tool 4
	Process Services				
	Process X	2.35	2.1	2.16	2.1
	Process Y	3.41	3.03	3.21	3.1
	Process Z	4.19	4.19	4.21	4.16

**FIG. 8**



**FIG. 9**

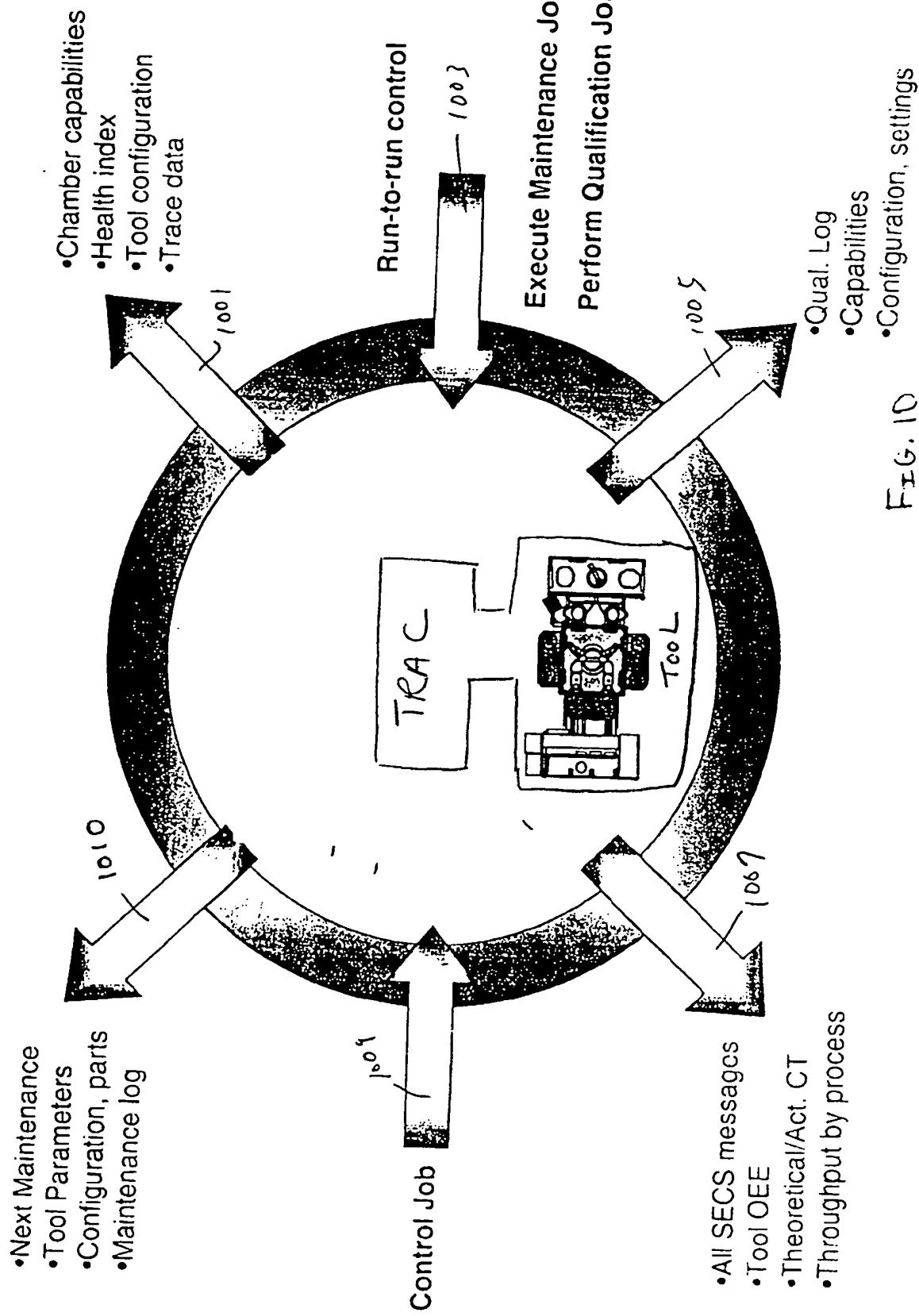
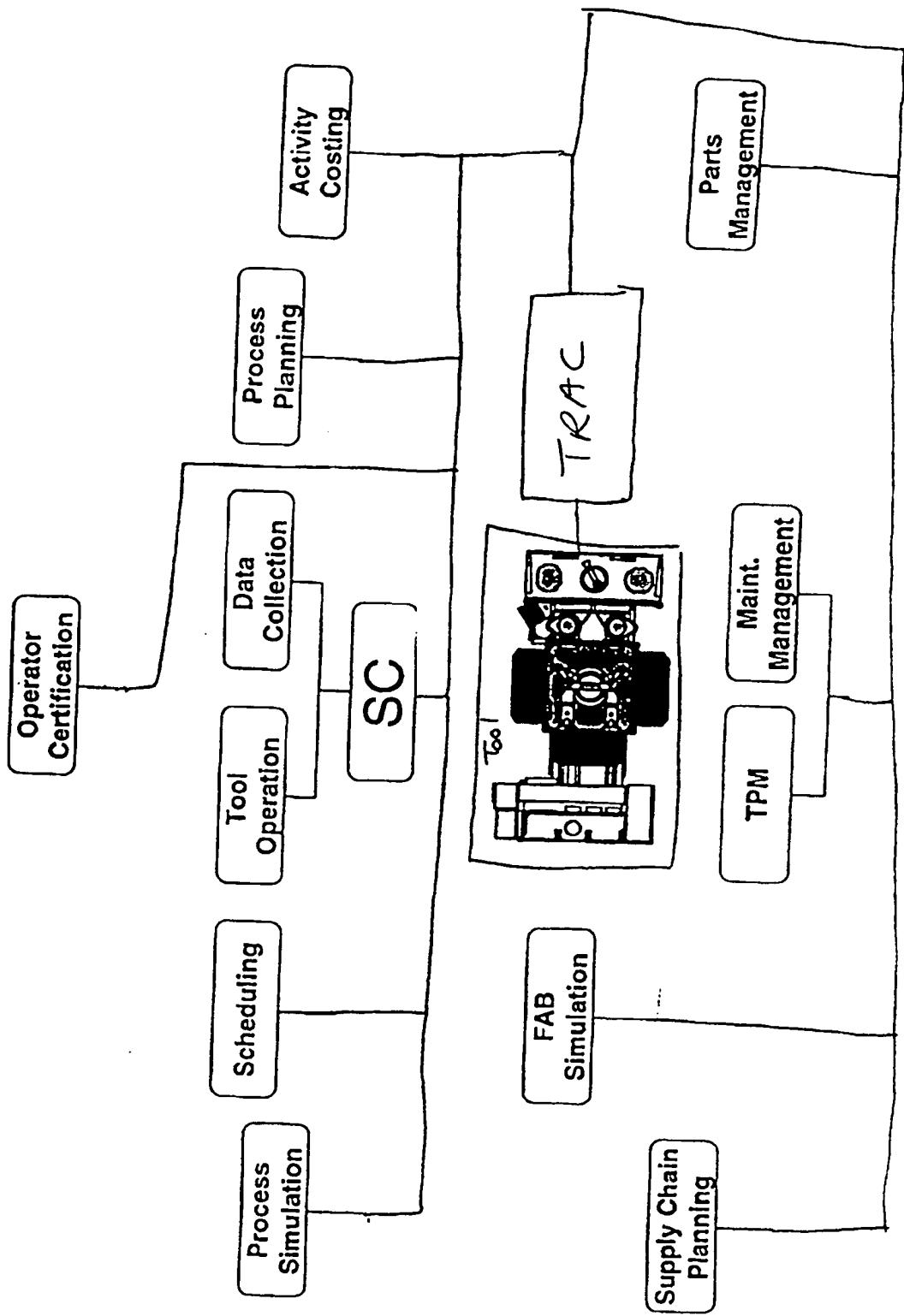


FIG. 10

Fig 11  
CONTROLLER/SOFTWARE APPLICATIONS



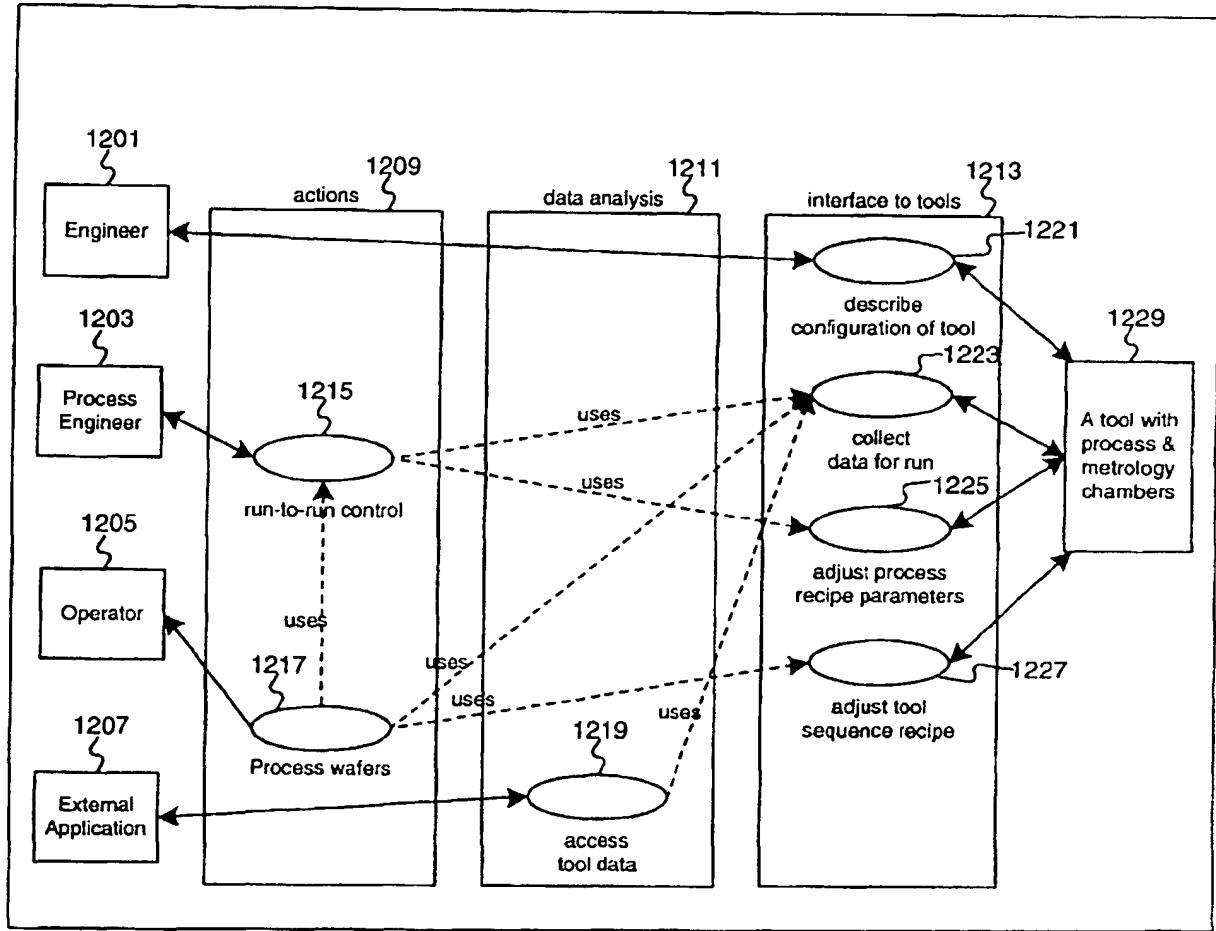
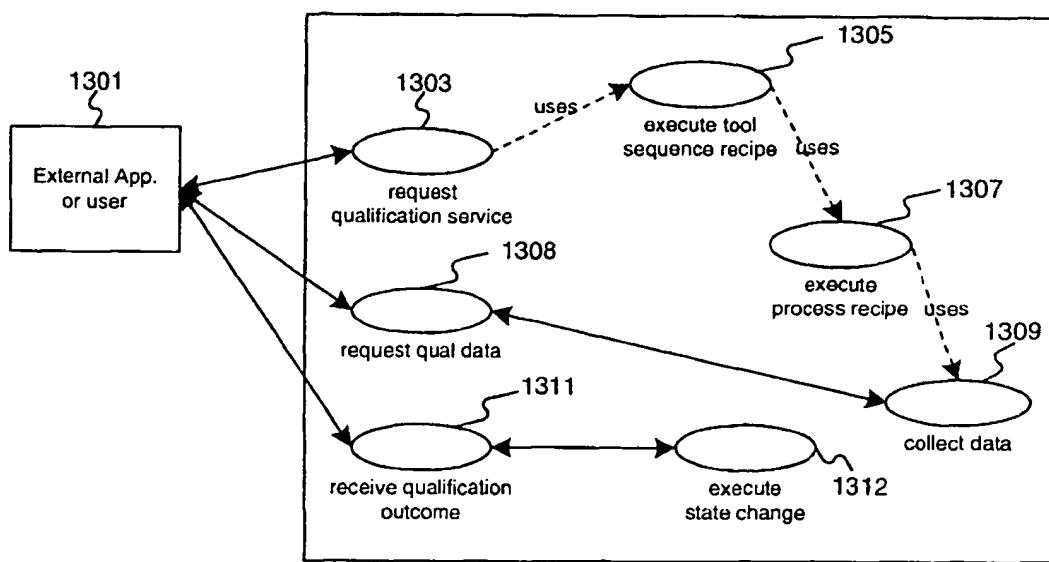


FIG. 12



**FIG. 13**

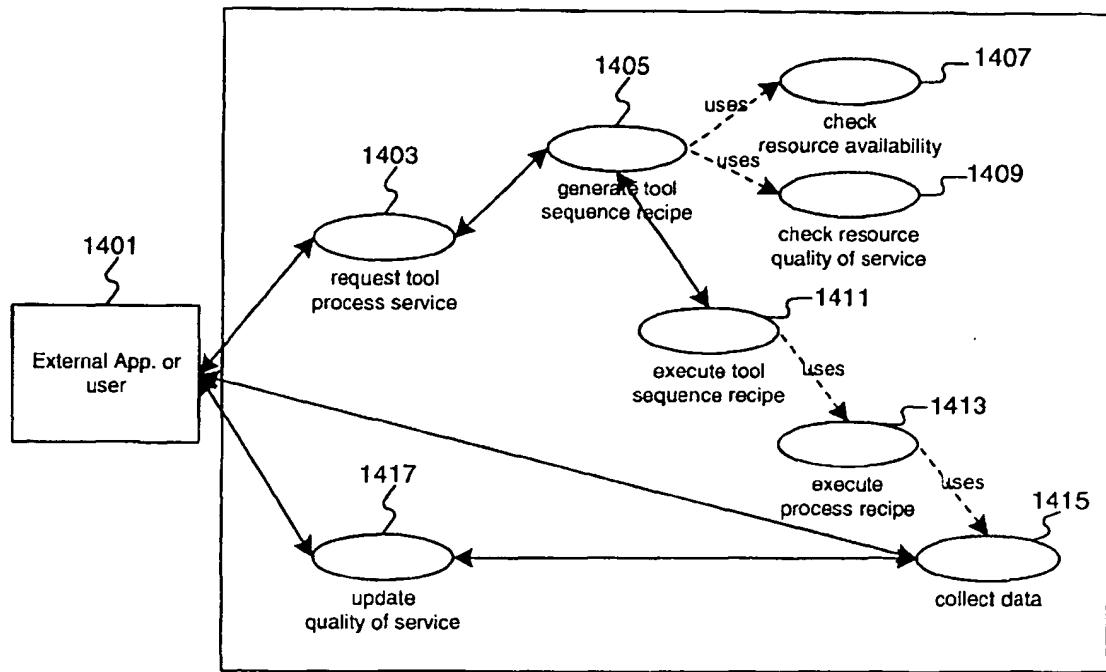


FIG. 14

## R2R Control Scenario

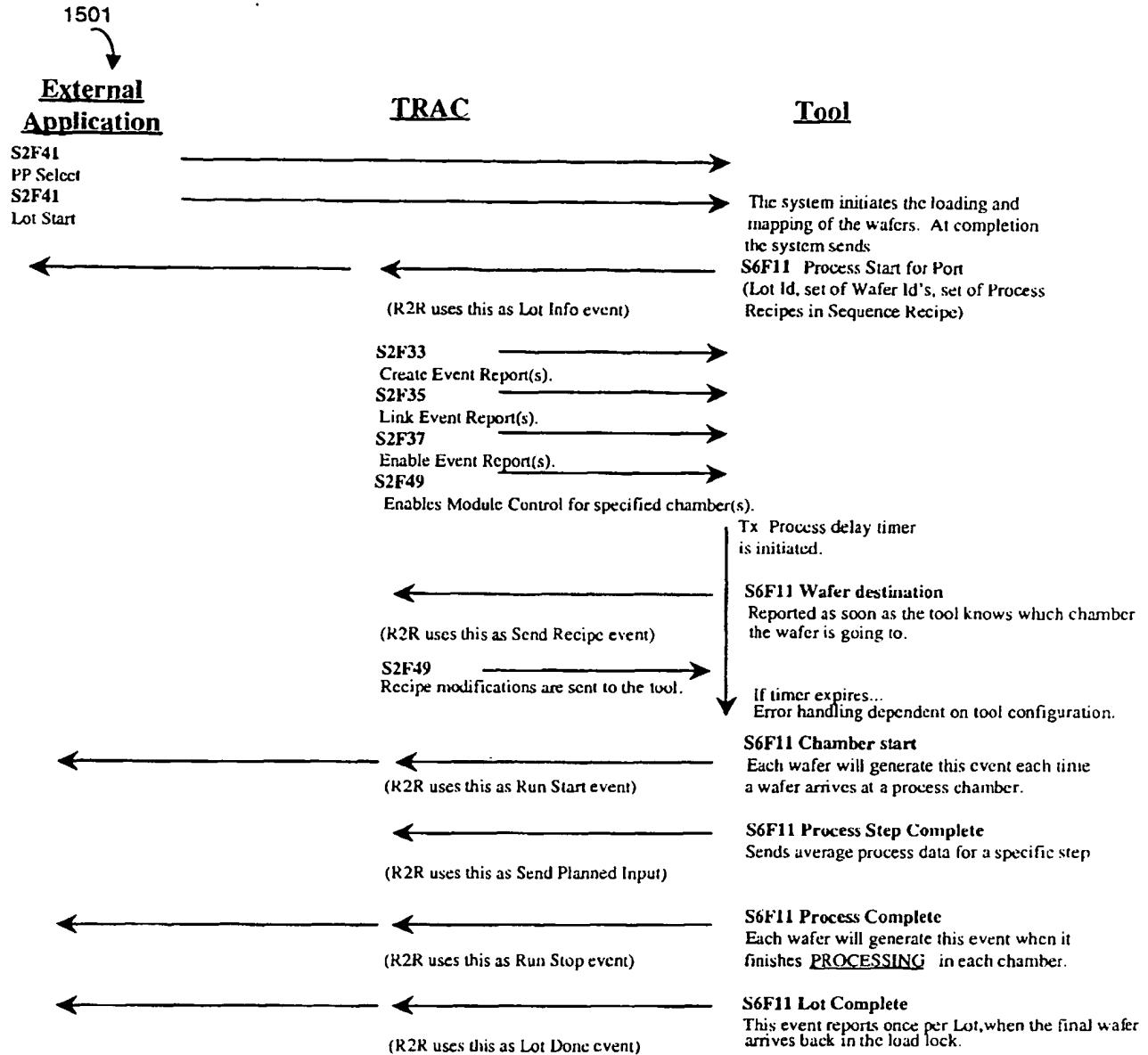
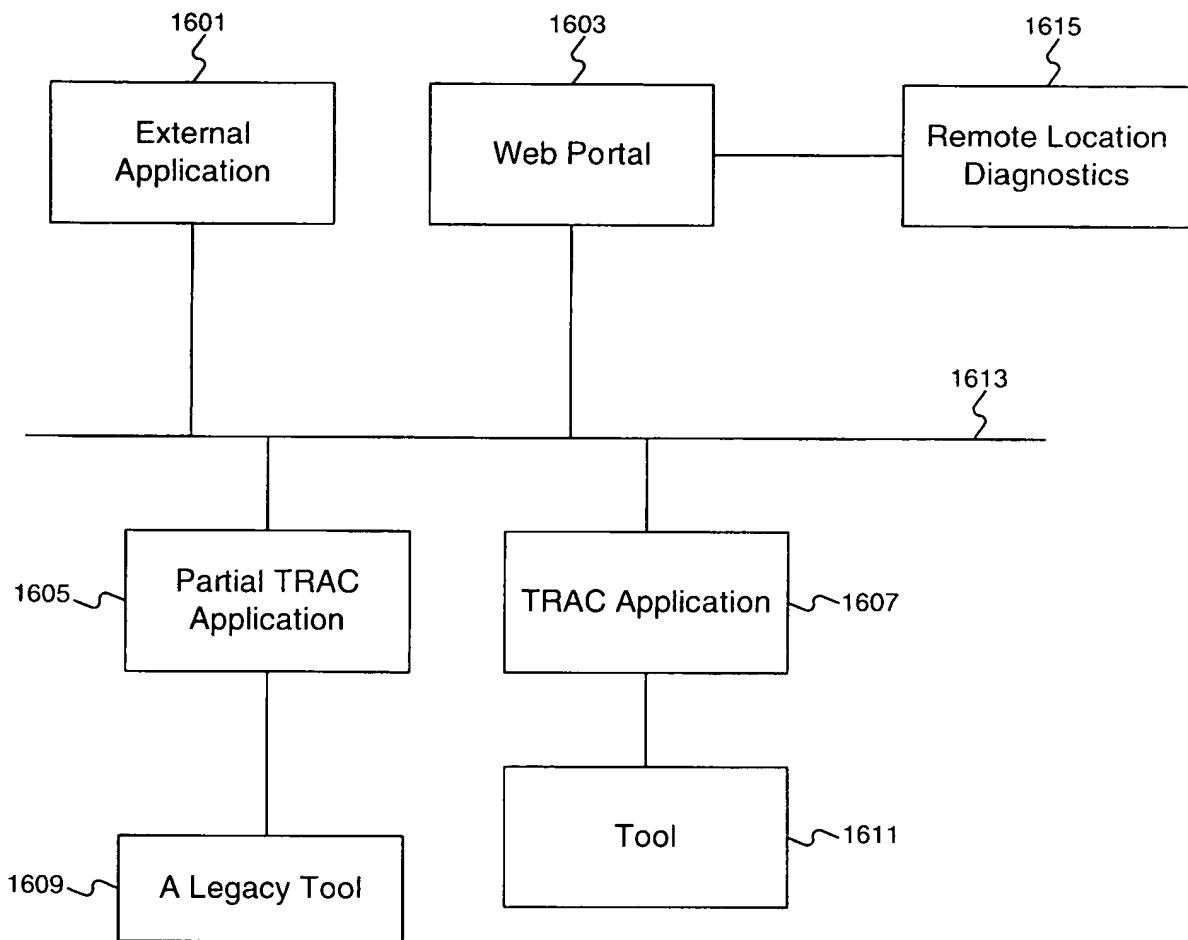
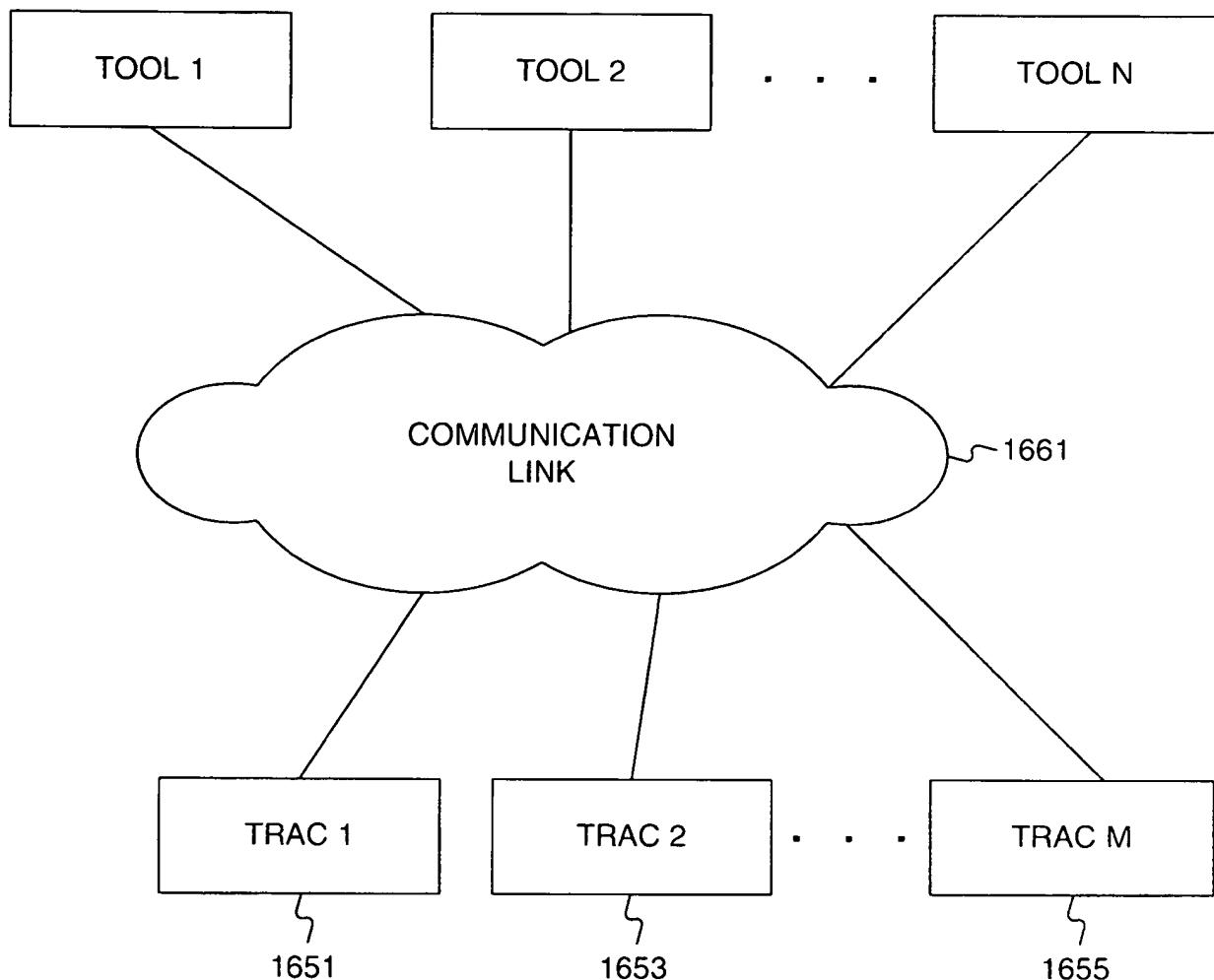


FIG. 15



**FIG. 16(a)**



**FIG. 16(b)**

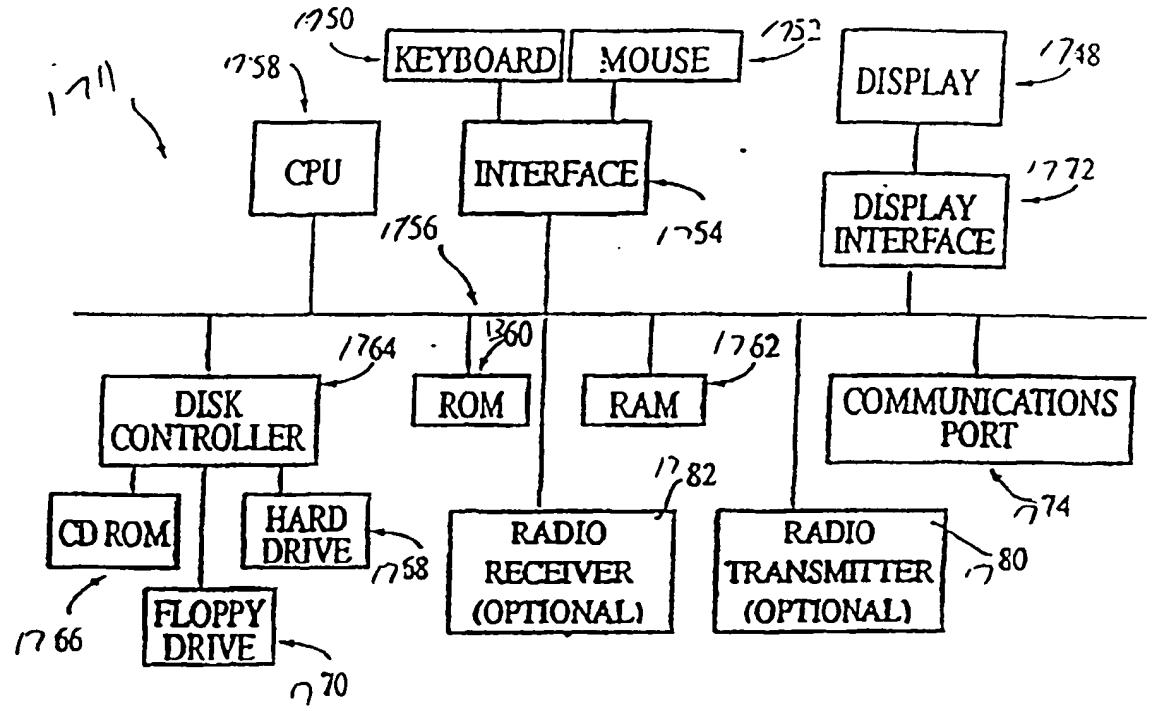
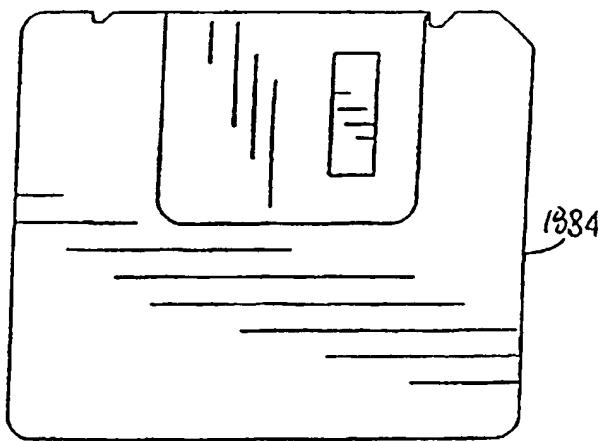


FIG. 12



**FIG. 18**